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**Filed** : **January 12, 2001**

### **REMARKS**

In the outstanding Office Action, the Examiner has rejected Claims 30-58. Claims 30-35, 37-40, 43, 45, 48-50, 53, and 56-58 have been amended, and no new matter has been added. Thus, Claims 30-58 are presented for further examination. Reconsideration and allowance of all Claims 30-58 in light of the present remarks is respectfully requested.

#### Discussion of Claim Rejections Under 35 U.S.C. § 103

##### Claims 30-40 and 48-57

The Examiner has rejected Claims 30-40 and 48-57 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,625,877 to Dunn, et al. in view of U.S. Patent No. 6,111,863 to Rostoker, et al., and further in view of U.S. Patent No. 6,359,656 to Huckins, J.

To establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, and the prior art references, when combined, must teach or suggest all the claim limitations. M.P.E.P. § 2143. Also, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

##### **Claims 30 and 48**

In regard to Claim 30, the Examiner stated that "Dunn, et al. (See Figs. 1 and 2a Col. II, lines 25-50, Col. 12, lines I-I5, 30-45 and Col. 13, lines 5-15) disclose a method for dynamically assigning radio resources by controlling a packet router (element 104) based on a call substantially as claimed", and that "[t]he differences between the above and the claimed invention is the specific terminology of packet handler and control data."

The Examiner further stated that "Huckins show[s] a data packet handler (elements 130 and 143) which are responsive to control inputs (element 142)" and that "[i]t is obvious that since some control is required for the operability of a packet network, the control of the prior art is exemplary and obvious to employ." The Examiner also stated that "Rostoker, et al. (See Figs. 3 and 4, Col. 3, lines 10-30) show[s] dynamic allocation of radio resources based on a call state and control of same", and that "[i]t would have been obvious to the person having ordinary skill

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in this art to provide a similar arrangement for Dunn, et al. because they are well known and conventional functional equivalents of packet routers in the prior art.”

Amended Claim 30 recites a method of controlling communication between user stations using a mobile communications system having a radio interface. The method comprises “establishing a call session between a first user station and at least a second user station over said radio interface, wherein the call session is configured for communication of voice signals between said first and second user stations; providing a data packet handler connected to a packet data network, wherein said data packet handler is configured to transfer data packets carrying call data between said first user station and said second user station during said call session.”

The method further comprises, “during said call session, receiving requests to transfer data packets carrying call data between said first user station and said second user station, and dynamically assigning radio resources for transfer of said data packets over said radio interface, wherein an amount of radio resource assigned varies in accordance with the amount of call data requiring transfer at different times during said call session as a result of said requests; holding control data relating to said call session between said first user station and said second user station, wherein said control data includes data indicating a state of said call session and data identifying the user stations participating in said call session; and during said call session, controlling the transfer of data packets carrying call data between said first and second user stations using said data packet handler in accordance with said control data.”

Neither Dunn, Rostoker, or Huckins, either alone or in combination, teach or suggest establishing a call session between a first user station and at least a second user station in a mobile communications system, wherein a data packet handler is configured to transfer data packets, during the call session, between the user stations in accordance with control data.

In contrast to the method of Claim 30, Dunn describes the aggregation of air-link channels prior to sending data between computer terminals over a mobile communications system. The system described by Rostoker allows the re-distribution of priorities for transmitting video, audio, and data between user stations, and allocating respective radio resource transmission of each of the respective audio and video data transmissions. Neither Dunn nor Rostoker, however, describe or suggest a method of controlling communication between user stations according to control data indicating a state of the call session. Furthermore, neither Dunn nor Rostoker describe or suggest a method comprising receiving requests to transfer data

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packets during the call session and dynamically assigning radio resources for transfer of the data packets. The system described by Dunn cannot dynamically assign radio resource during a call, where dynamic allocation takes place prior to sending data files in the system described by Dunn.

In addition, Huckins fails to cure the deficiencies of Dunn and Rostoker. Specifically, Huckins describes one way transfer of video and/or audio data over a standard telephone system or Internet to a node, wherein control data is processed synchronously with the audio and/or video data. Huckins, however, fails to teach or suggest a method of controlling communication between user stations according to control data indicating a state of the call session and identifying the user stations participating in the call session, wherein requests to transfer data packets are received during the call session and radio resources are dynamically assigned for transfer of the data packets

As neither Dunn, Rostoker, or Huckins, either alone or in combination, teach or suggest all of the elements as recited in amended Claim 30, Applicant respectfully submits Claim 30 for further review as patentable subject matter.

As amended Claim 48 recites limitations similar to those recited in the method of Claim 30, the arguments with respect to Claim 30 similarly apply to Claim 48, and thus, Claim 48 is respectfully submitted for further review as patentable subject matter.

Because Claims 31-44 depend from Claim 30, pursuant to 35 U.S.C. § 112, ¶ 4, they incorporate by reference all the limitations of the claim to which they refer. It is therefore submitted that these claims are in condition for allowance at least for the reasons expressed with respect to the independent claim, and for their other features.

#### **Claim 49**

In regard to Claim 49, the Examiner stated that “Dunn, et al. (See Figs. 1 and 2a Col. II, lines 25-50, Col. 12, lines I-I5, 30-45 and Col. 13, lines 5-15) disclose a method for dynamically assigning radio resources by controlling a packet router (element 104) based on a call substantially as claimed.” The Examiner then re-stated the arguments recited in regard to Claim 30.

The mobile station of amended Claim 49 is adapted to communicate with a data packet handler during participation in a call session in which other user stations are participating. The mobile station comprises “means for dynamically requesting resources for transmission of data

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packets carrying call data over a radio interface during a call session to one or more participating user stations, wherein the amount of radio resources requested varies in accordance with the amount of call data to be transmitted at different times during said call session; and means for transmitting and receiving control data to and from said data packet handler to signal call-related control functions, said control data including data on a status of said call session and/or the identities of user stations participating in said call session.”

The prior art of record fails to describe a mobile station that is adapted to communicate with a data packet handler during participation in a call session in which other user stations are participating. In addition, neither Dunn, Rostoker, or Huckins describe means for dynamically requesting resources during such a call session based on the amount of call data to be transmitted, nor do any of the references describe means for transmitting or receiving control data that relates to the status of the call session or the identities of user stations in the call session.

Specifically, neither Dunn nor Rostoker describe a mobile station that can communicate in a call session, nor does either reference describe a mobile station comprises means for dynamically requesting radio resources depending on the amount of call data to be transmitted during the actual call session. In fact, in the system described by Dunn, requests for dynamic radio resource allocation by a user station can only take place prior to any transmission taking place. In addition, as neither Dunn nor Rostoker relate to call sessions, they do not describe any type of call control data relating to the status of the call session nor the identities of the user stations in the call session. Furthermore, Huckins fails to cure these deficiencies in Dunn and Rostoker.

Thus, as the prior art of record fails to teach or suggest every element as recited in amended Claim 49, Applicant respectfully submits Claim 49 for further review as patentable subject matter.

### **Claims 50 and 53**

In regard to Claim 50, the Examiner re-stated his arguments recited in regard to Claim 30, except that in regard to Rostoker, the Examiner stated that “Rostoker, et al. (See Figs. 3 and 4, Col. 3, lines 10-30) show[s] dynamic allocation of radio resources based on a call state and control of same and a camera input (Col. 6, lines 5-10)”, and that it would have been “obvious to employ a half-duplex mode in a video transmission because of the enormous bandwidth requirements of video data.”

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Amended Claim 50 recites a method of conducting communications between user stations using a mobile communications system wherein each user station comprises a camera for picking up a video image of a user and a display for displaying an image of a remote party. The method comprises “establishing a call session between participating user stations in which video data transfer can take place between said user stations at different times during said call session, wherein said video data represents a video image picked up by a camera of a participating user station.” The method further comprises, “during said call session, controlling said video transfer in a half-duplex mode such that a user station may perform one of either only receiving or only transmitting video data for a first period sufficient to receive or transmit video data that is subsequently used to display a video image on a display of a receiving user station, and perform the other of only receiving or only transmitting video data for a second period following said first period, sufficient to transmit or receive video data that is subsequently used to display a video image on a display of a receiving user station.”

There is no teaching or suggestion in Dunn, Rostoker, or Huckins, either alone or in combination with the knowledge of those skilled in the technology, of establishing a call session between participating user stations that allows transfer of video data. Furthermore, the prior art of record fails to teach or suggest using a first period of sufficient duration during that call session to transfer video data in a half-duplex mode such that enough video data is transmitted to contain a video image.

Traditionally, half-duplex is used in a manner to provide quasi-duplex communications. This provides the appearance that both parties are communicating simultaneously, when in fact data is being transmitted and received in an interleaved manner between two user stations. In contrast, half-duplex is employed in quite a different manner in the present invention. The use of half-duplex in the present invention relates to sending video data for an entire time period in the call session, the period being of sufficient length to enable a sufficient amount of video data to be transmitted such that the receiving party can receive enough data in that period to receive a video image. There is no teaching or suggestion in the prior art of record, either alone or in combination with the knowledge of those skilled in the art, of establishing a call session between participating user stations in which video data transfer can take place between said user stations as recited in Claim 50.

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Thus, as the prior art of record fails to teach or suggest, either alone or in combination, every element as recited in amended Claim 50, Applicant respectfully submits Claim 50 for further review as patentable subject matter.

As amended Claim 53 recites limitations similar to those recited in the method of Claim 50, the arguments with respect to Claim 50 similarly apply to Claim 53, and thus, Claim 53 is respectfully submitted for further review as patentable subject matter.

Because Claims 51, 52, and 54-56 depend from Claims 50 and 53, pursuant to 35 U.S.C. § 112, ¶ 4, they incorporate by reference all the limitations of the claim to which they refer. It is therefore submitted that these claims are in condition for allowance at least for the reasons expressed with respect to the independent claim, and for their other features.

#### **Claim 57**

In regard to Claim 57, the Examiner simply stated that “Rostoker et al (See Col. 1, line 40) show a multicast which is the functional equivalent of the claim.”

Amended Claim 57 recites a “mobile communications station having a group dispatch mode of operation, said station comprising a camera for video data capture and means for transmitting said video data in said group dispatch mode.”

Rostoker fails to describe or suggest a mobile communications station having a group dispatch mode of operation, wherein the mobile communications station has a camera for video data capture and means for transmitting the video data in the group dispatch mode. The system described by Rostoker allows for the re-distribution of priorities for transmitting video, audio, and data between user stations, and a fixed transmission bandwidth is allocated to each of the respective audio, video, and data transmissions according to the priority assignments. In addition, the general discussion of digital and mixed systems in Rostoker at col. 1, line 40 cited by the Examiner in no way teaches or suggests all of the features recited in Claim 57. Furthermore, the Examiner provided no argument and pointed to no teaching in the prior art of record as to why or how the claimed mobile communications station would be obvious in view of the system described by Rostoker.

Thus, as Rostoker fails to teach or suggest every feature as recited in Claim 57, Applicant respectfully submits Claim 57 for further review as patentable subject matter.

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Claims 42-47 and 58

The Examiner has rejected Claims 42-47 and 58 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,625,877 to Dunn, et al. in view of U.S. Patent No. 6,111,863 to Rostoker, et al., U.S. Patent No. 6,359,656 to Huckins, J., and U.S. Patent No. 5,666,348 to Thornberg, et al.

Regarding claim 45, the Examiner stated that “Dunn, et al. (See Figs. 1 and 2a Col. II, lines 25-50, Col. 12, lines 1-15, 30-45 and Col. 13, lines 5-15) disclose[s] a method for dynamically assigning wireless radio resources by controlling a packet router (element 104) based on a call substantially as claimed,” and that “[t]he differences between the above and the claimed invention is the specific terminology of packet handler and control data and GSM-type.”

The Examiner further stated that “Huckins show[s] a data packet handler (elements 130 and 143) which are responsive to control inputs (element 142)”, and that it “is obvious that since some control is required for the operability of a packet network, the control of the prior art is exemplary and obvious to employ.” The Examiner also stated that “Rostoker, et al. (See Figs. 3 and 4, Col. 3, lines 10-30) show[s] dynamic allocation of radio resources of any type radio (Col. 9, line 30) based on a call state and control of same”, and that “Thornberg, et al.(Col.1, lines 30-35) show[s] GSM packet cellular.” The Examiner argued that “[i]t would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Dunn et al because they are well known and conventional functional equivalents of packet network elements in the prior art.”

To establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, and the prior art references, when combined, must teach or suggest all the claim limitations. M.P.E.P. § 2143. Also, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Amended Claim 45 recites a method of handling transfer of data in a call session established in a GSM-type mobile communications system between two or more user stations, wherein the transfer of data takes place between the two or more user stations participating in the call session. The method comprises “receiving a first data packet from a first user station, said

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first data packet containing a recipient ID; mapping said recipient ID to a packet network protocol address, wherein the packet network protocol address identifies a route to a second user station gateway GPRS support node; and transmitting a second data packet to said gateway GPRS support node, said second data packet containing said packet network protocol address.”

Neither Dunn, Huckins, Rostoker, or Thornberg relate to a method of handling transfer of data in a call session established in a GSM-type mobile communications system wherein the call session is established between two or more user stations as recited in Claim 45, nor do the references relate to enabling transfer of data packets between those user stations participating in the call session. For example, the packet router described by Dunn does not operate in a call session established between two or more user stations in a mobile communications system for transfer of data between those stations participating in the call session. Rather, Dunn simply describes the point-to-point transfer of data over a standard radio channel to a user station and no mapping of a recipient ID is performed. Similarly, the systems described by Huckins and Thornberg are not adapted for use in transferring packets over a mobile communications system in which a packet mode call session between user stations has been established.

Thus, as the prior art of record, either alone or in combination, fails to teach or suggest every element as recited in amended Claim 45, Applicant respectfully submits Claim 45 for further review as patentable subject matter.

Because Claims 46 and 47 depend from Claim 45, pursuant to 35 U.S.C. § 112, ¶ 4, they incorporate by reference all the limitations of the claim to which they refer. It is therefore submitted that these claims are in condition for allowance at least for the reasons expressed with respect to the independent claim, and for their other features.

In regard to Claim 58, the Examiner restated his arguments as directed to Claim 45, but noted that Thornberg shows “GSM packet cellular having a node (element 102).

Amended Claim 58 recites a method of controlling communication between user stations using a GSM-type mobile communications system. The method comprises “establishing a call session between a first and second user station, wherein the call session is configured for communication between said user stations; providing a data packet handler connected to a GPRS support node for transferring data packets carrying call data between said user stations during said call session; holding control data relating to said call session between said first user station



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and said second user station, in a data store accessible by said data packet handler, wherein said control data includes data indicating a state of said call session and data identifying user stations participating in said call session; and during said call session, controlling the transfer of data packets between said first and second user stations via a GPRS data link, using said data packet handler, in accordance with said control data.”

As discussed above with respect to Claim 30, neither Dunn, Rostoker, or Huckins, either alone or in combination, teach or suggest establishing a call session between a first user station and second user station in a mobile communications system, wherein a data packet handler is configured to transfer data packets, during the call session, between the user stations in accordance with control data. In addition, neither Dunn, Rostoker, nor Huckins discuss controlling the transfer of data packets via GPRS data link or providing a data packet handler connected to a GPRS support node as recited in Claim 58. Furthermore, Thornberg describes a system and method for controlling admissions to a packet switched radio channel. Thornberg, however, does not describe a data packet handler connected to a GPRS support node for transferring data packets carrying call data between a first user station and a second user station, or controlling the transfer of data packets between first and second user stations via a GPRS data link during a call session using a data packet handler in accordance with control data.

Thus, as the prior art of record, either alone or combination, fails to teach or suggest every element as recited in Claim 58, Applicant respectfully submits Claim 58 for further review as patentable subject matter.

### Conclusion

Applicant has endeavored to address all of the Examiner’s concerns as expressed in the outstanding Office Action. Accordingly, amendments to the claims for patentability purposes pursuant to statutory section 103, the reasons therefor, and arguments in support of the patentability of the pending claim set are presented above. In light of these amendments and remarks, reconsideration and withdrawal of the outstanding rejections is respectfully requested.

Any claim amendments which are not specifically discussed in the above remarks are not made for patentability purposes, and it is believed that the claims would satisfy the statutory requirements for patentability without the entry of such amendments. Rather, these amendments have only been made to increase claim readability, to improve grammar, and to reduce the time

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and effort required of those in the art to clearly understand the scope of the claim language. Furthermore, any new claims presented above are of course intended to avoid the prior art, but are not intended as replacements or substitutes of any cancelled claims. They are simply additional specific statements of inventive concepts described in the application as originally filed.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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Dated: 10/4/08

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